Title (en)

System and method for processing a signal being emitted from a target signal source into a noisy environment

Title (de)

Vorrichtung und Verfahren zur Verarbeitung eines Signales emittiert von einer Zielsignalquelle in einer geräuschvollen Umgebung

Title (fr)

Système et procédé de traitement d'un signal émis d'une source de signal cible à une environnement bruyant

Publication

EP 1184676 B1 20040506 (EN)

Application

EP 00119081 A 20000902

Priority

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Abstract (en)

[origin: EP1184676A1] The invention relates to a system and method for processing a signal being emitted from a target signal source 20 into a noisy environment, wherein said target signal source 20 is located in a target signal source direction ϕs with regard to the position of a transducer array 10, the method comprising the following steps: receiving, transforming and filtering said signal according to filter coefficients of a beamformer 30I, 30II in order to generate at least one beamformer output signal y'i(n), i=1...N, the filter coefficients defining a desired predetermined filter characteristic of the beamformer; and generating a control signal t(n) representing said target signal source direction ϕs. It is the object of the invention to improve such a system and method in the way that clear signal reception is achieved for any target signal source direction ϕs with only a minimum of computational effort and memory capacity. That object is achieved by providing adjustable filter coefficients which are generated in response to said control signal t(n) such that the beamformer 30I, 30II has a predetermined filtering characteristic for said target signal source 20 at said target signal source direction ϕs. <IMAGE>

IPC 1-7

G01S 3/802; G01S 3/04

IPC 8 full level

G01S 3/74 (2006.01); **G01S 3/04** (2006.01); **G01S 3/802** (2006.01); **G01S 3/82** (2006.01); **G01S 7/523** (2006.01); **H03H 21/00** (2006.01); **H04B 7/08** (2006.01)

CPC (source: EP US)

G01S 3/043 (2013.01 - EP US); **G01S 3/802** (2013.01 - EP US); **H03H 21/0012** (2013.01 - EP US); **H04B 7/086** (2013.01 - EP US)

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DOCDB simple family (application)

EP 00119081 A 20000902; AU 1218502 A 20010831; DE 60010457 T 20000902; EP 0110053 W 20010831; JP 2002523637 A 20010831; US 36333103 A 20030710